West Virginia

Science and Engineering Profile

Characteristic	State	U.S.	Rank	Characteristic	State	U.S.	Rank
Doctoral scientists, 1999[1]	2,060	518,670	42	Total R&D performance, 1998 (millions)	$421	$214,668	40
Doctoral engineers, 1999[1]	380	107,100	41	Industry R&D, 1998 (millions)	$225	$163,480	39
S&E doctorates awarded, 1999[1]	77	25,953	42	Academic R&D, 1998 (millions)	$63	$25,342	47
of which, in psychology	31%	14%		of which, in life sciences	55%	57%	
in life sciences	25%	25%		in engineering	30%	16%	
in engineering	22%	21%		in physical sciences	5%	9%	
S&E postdoctorates, 1998[1]				Public higher education current-fund			
in doctorate-granting institutions	14	39,494	49	expenditures, 1997 (millions)	$743	$125,236	37
S&E graduate students, 1998[1]				Number of SBIR awards, 1990-98	16	35,413	51
in doctorate-granting institutions	2,853	422,834	37	Patents issued to state residents, 1999	149	83,901	43
Population, 1999 (thousands)	1,807	276,580	37	Gross state product, 1998 (billions)	$40	$8,800	41
Civilian labor force, 1999 (thousands)	817	140,536	38	of which, agriculture	1%	1%	
				manufacturing, mining, construction	29%	22%	
Personal income per capita, 1999	$20,966	$28,542	50	transportation, communication, utilities	12%	9%	
				wholesale and retail trade	15%	16%	
Federal spending				finance, insurance, real estate	12%	19%	
Total expenditures, 1999 (millions)	$11,028	$1,508,933	37	services	17%	21%	
R&D obligations, 1998 (millions)	$243	$70,445	33	government	15%	12%	

NOTE: Rankings and totals are based on data for the 50 States, District of Columbia, and Puerto Rico. Reliability of the estimates of industry R&D and of doctoral scientists and engineers varies by State, because the sample allocation was not based on geography. The rankings do not take into account the margin of error of estimates from sample surveys.

[1]Data on graduate students, doctoral scientists and engineers, and postdoctorates include all graduate degree (except M.D.) candidates and recipients in S&E fields, including health fields. Data on S&E doctorates awarded do not include health fields.

Federal Obligations for Research and Development by Agency and Performer: Fiscal Year 1998

Agency	Performer							
	Total	Federal Intramural	All FFRDCs	Industrial firms	Universities & colleges	Other nonprofits	State & local government	State rank, total
	[In thousands of dollars]							
Total, all agencies	242,844	96,682	30,448	84,815	26,830	868	3,201	33
Department of Agriculture	20,579	16,276	0	0	3,888	38	377	26
Department of Commerce	647	97	0	0	550	0	0	47
Department of Defense	18,068	446	0	15,182	2,437	0	3	40
Department of Energy	101,577	46,610	0	49,956	4,165	721	125	13
Dept. of Health & Human Services	39,299	26,654	0	2,988	8,691	0	966	36
Department of the Interior	7,089	6,599	0	12	114	0	364	27
Department of Transportation	2,453	0	0	1,117	150	0	1,186	30
Environmental Protection Agency	187	0	0	0	0	7	180	49
National Aeronautics and Space Admin	18,286	0	0	11,603	6,581	102	0	25
National Science Foundation	34,659	0	30,448	3,957	254	0	0	21
State rank, total	33	23	15	29	46	51	28	na

NOTE: Federal R&D obligations are as reported by funding agencies. Ranks and totals are based on data for the 50 States, District of Columbia, and Puerto Rico.

KEY: FFRDC = federally funded research and development center; SBIR = small business innovation research; na = not applicable.

SOURCES: Prepared by the National Science Foundation/Division of Science Resources Studies. Data compiled from numerous sources -- see the section, "Data Sources for Science and Engineering (S&E) State Profiles".